

ABSTRACT OF THE DISCLOSURE

A method for measuring distance and velocity at a plurality of objects using FMCW radar, in which measurements are repeated cyclically using at least two different frequency ramps, in
5 each measurement, the transmitted signal is mixed with the received signal, and the spectrum of the mixed signal is recorded, in a matching procedure, the peaks that are in the spectra recorded for various ramps and that belong to the same object are allocated to each other, and the distances and
10 velocities of the objects are calculated from the frequencies of the peaks, and in a tracking procedure, the objects measured at various times are identified with one another on the basis of the consistency of their distance and velocity data, wherein each measuring cycle includes not more than
15 three measurements with different frequency ramps, for each plausible combination of two peaks, of which one was recorded during a first measurement and the other was recorded during a second measurement of the same cycle, the distance and the velocity of one possible object represented by these peaks are
20 calculated, the anticipated result of at least one further measurement is calculated from the distance and the velocity of the possible object, and the possible object is discarded if at least one anticipated result does not agree with the measured result.

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